STATE OF MARYLAND

DHMH

Maryland Department of Health and Mental Hygiene
201 W. Preston Street • Baltimore, Maryland 21201
Martin O'Malley, Governor – Anthony G. Brown, Lt. Governor – Joshua M. Sharfstein, M.D., Secretary

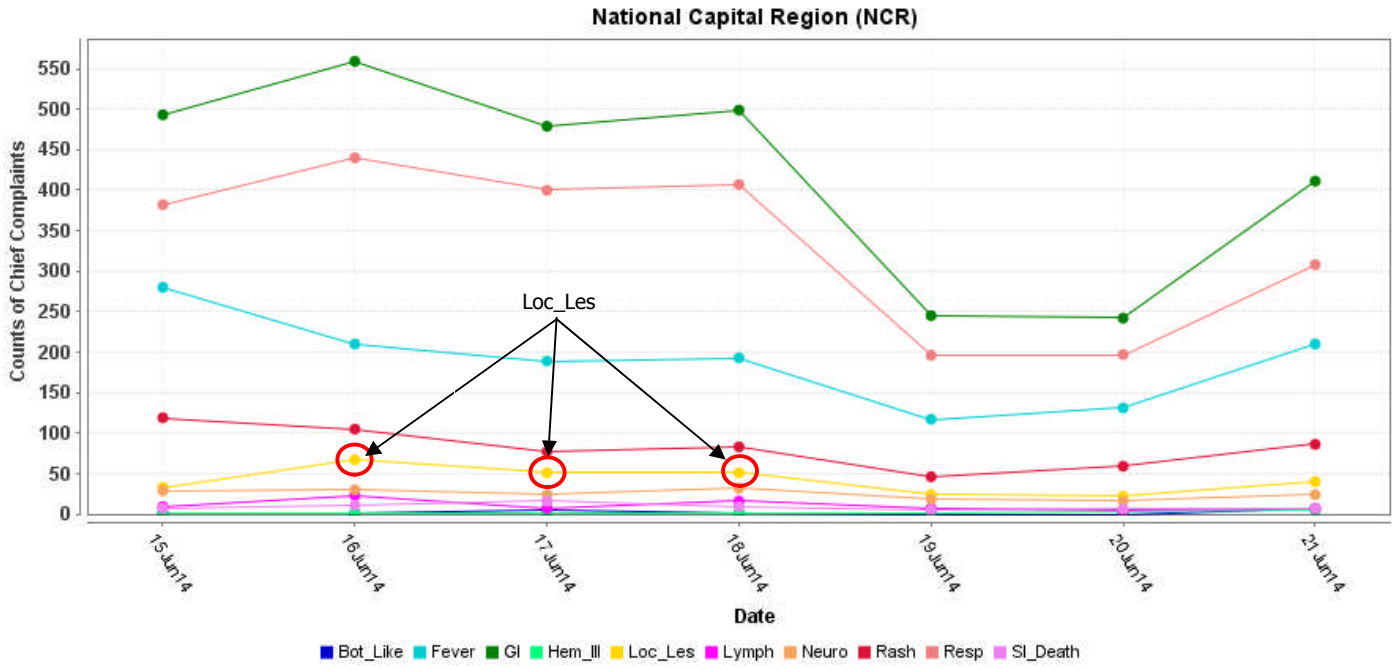
June 27, 2014

Public Health & Emergency Preparedness Bulletin: # 2014:25
Reporting for the week ending 06/21/14 (MMWR Week #25)

CURRENT HOMELAND SECURITY THREAT LEVELS

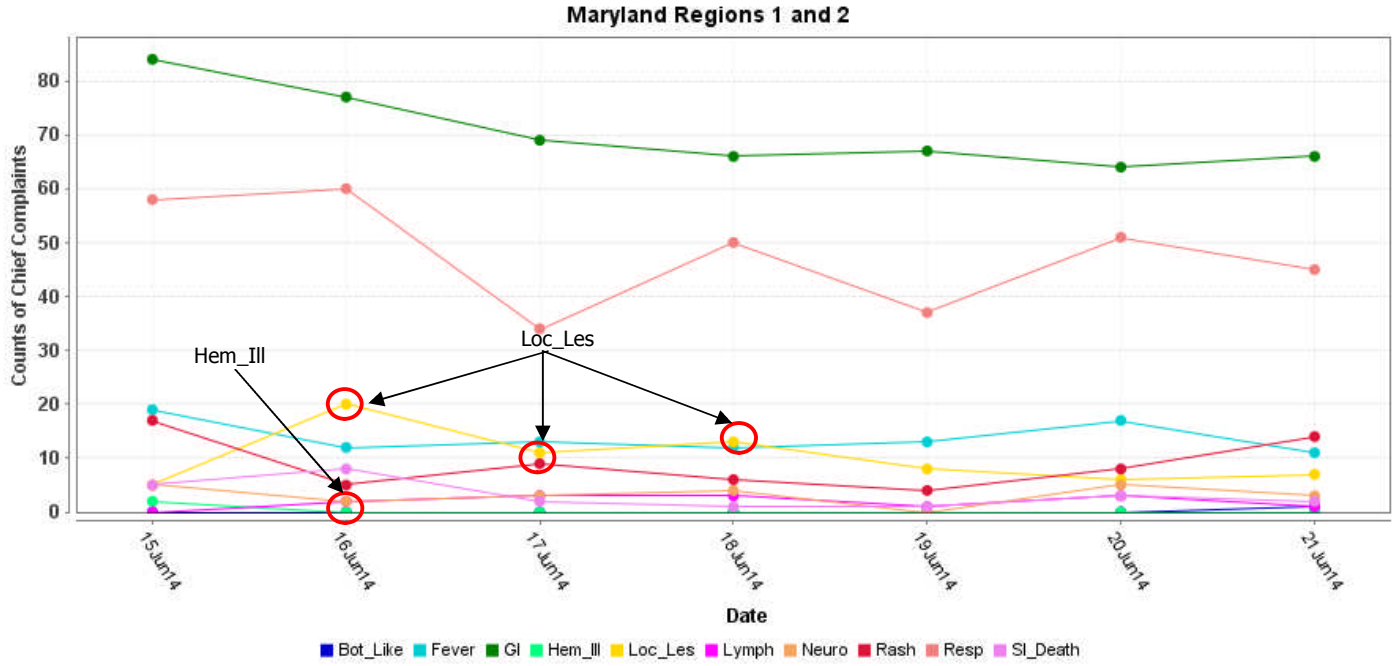
National: **No Active Alerts**
Maryland: **Level Four (MEMA status)**

SYNDROMIC SURVEILLANCE REPORTS
ESSENCE (Electronic Surveillance System for the Early Notification of Community-based Epidemics):
Graphical representation is provided for all syndromes, excluding the "Other" category, all age groups, and red alerts are circled. Red alerts are generated when observed count for a syndrome exceeds the 99% confidence interval. Note: ESSENCE – ANCR uses syndrome categories consistent with CDC definitions.
Overall, no suspicious patterns of illness were identified. Track backs to the health care facilities yielded no suspicious patterns of illness.

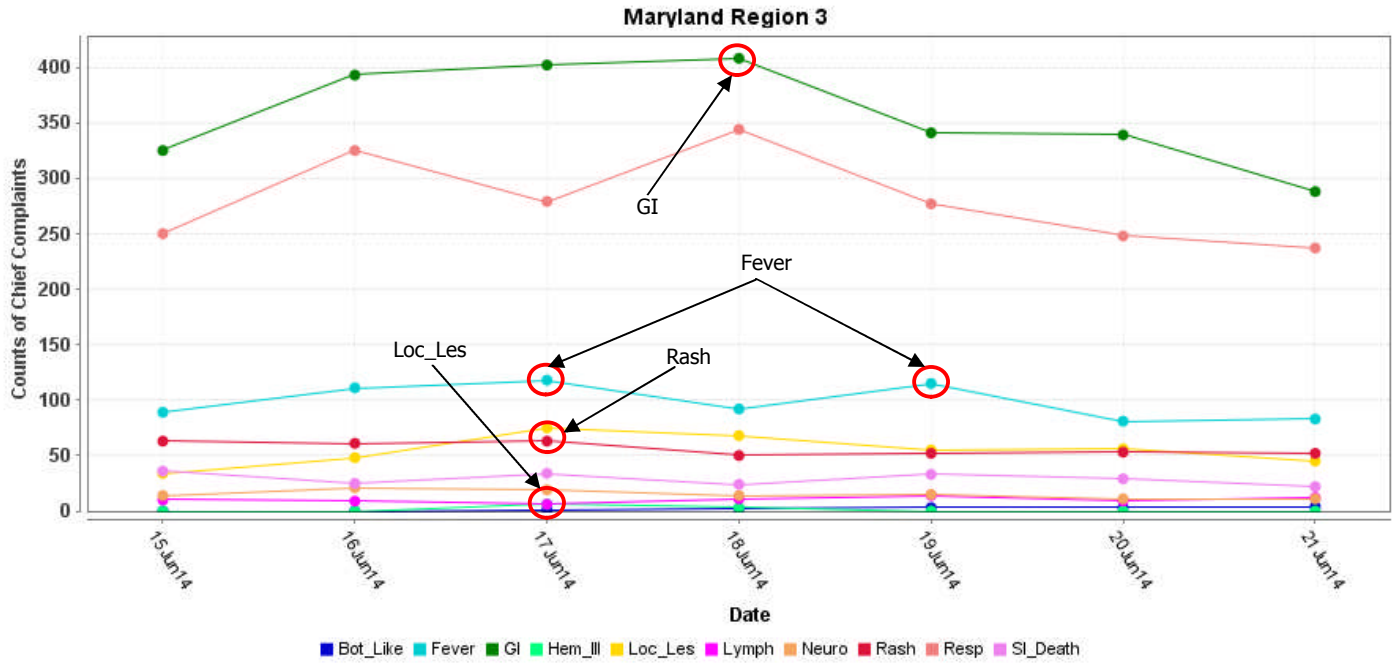


*Includes EDs in all jurisdictions in the NCR (MD, VA, and DC) reporting to ESSENCE

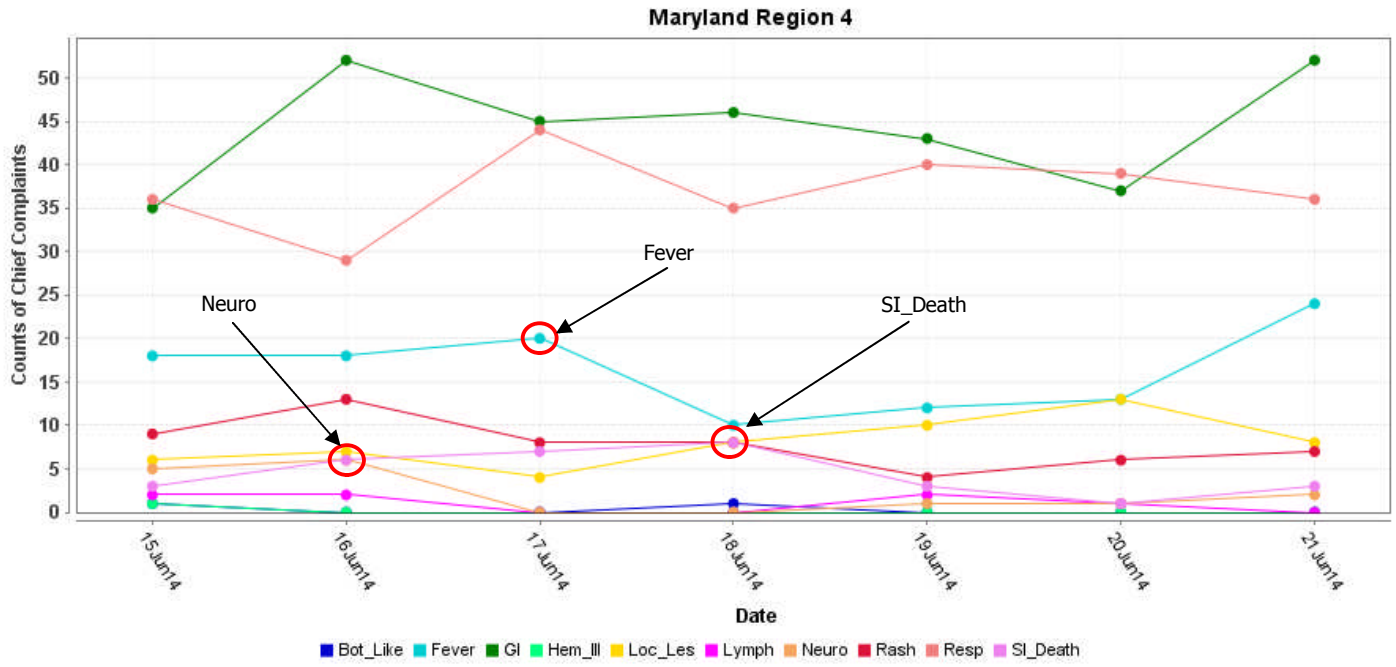
MARYLAND ESSENCE:



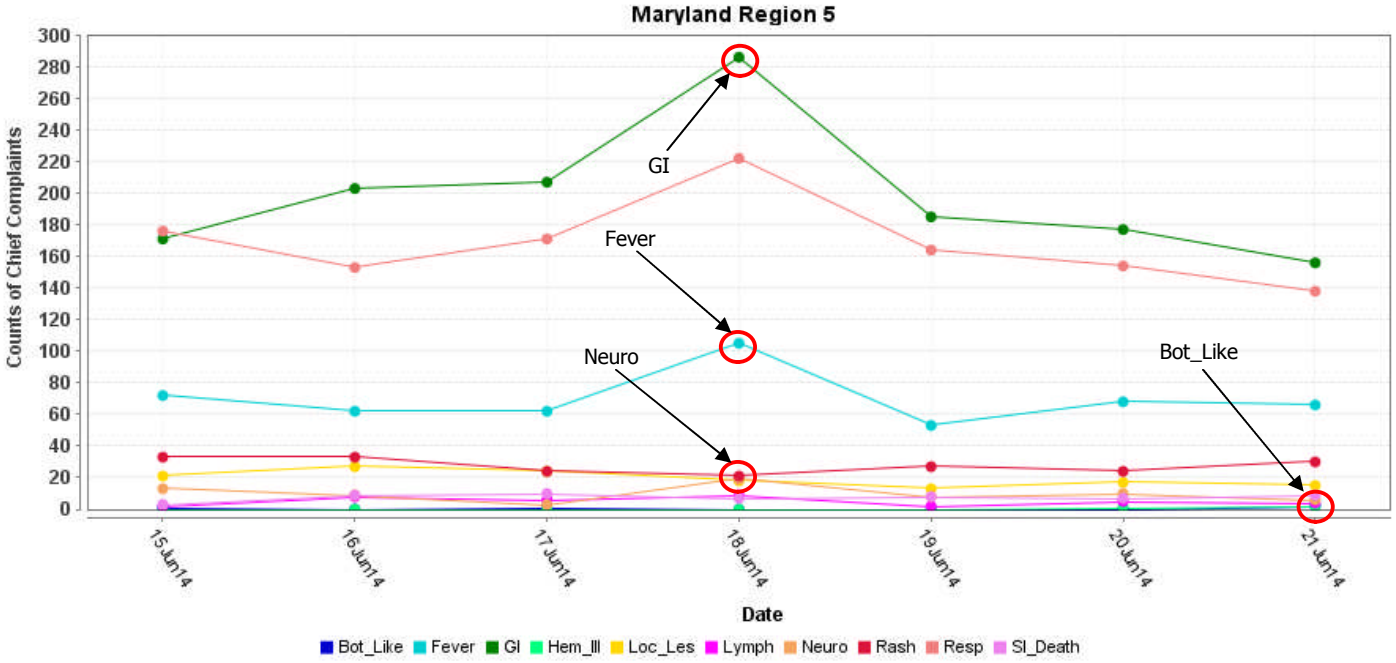
* Region 1 and 2 includes EDs in Allegany, Frederick, Garrett, and Washington counties reporting to ESSENCE



* Region 3 includes EDs in Anne Arundel, Baltimore City, Baltimore, Carroll, Harford, and Howard counties reporting to ESSENCE



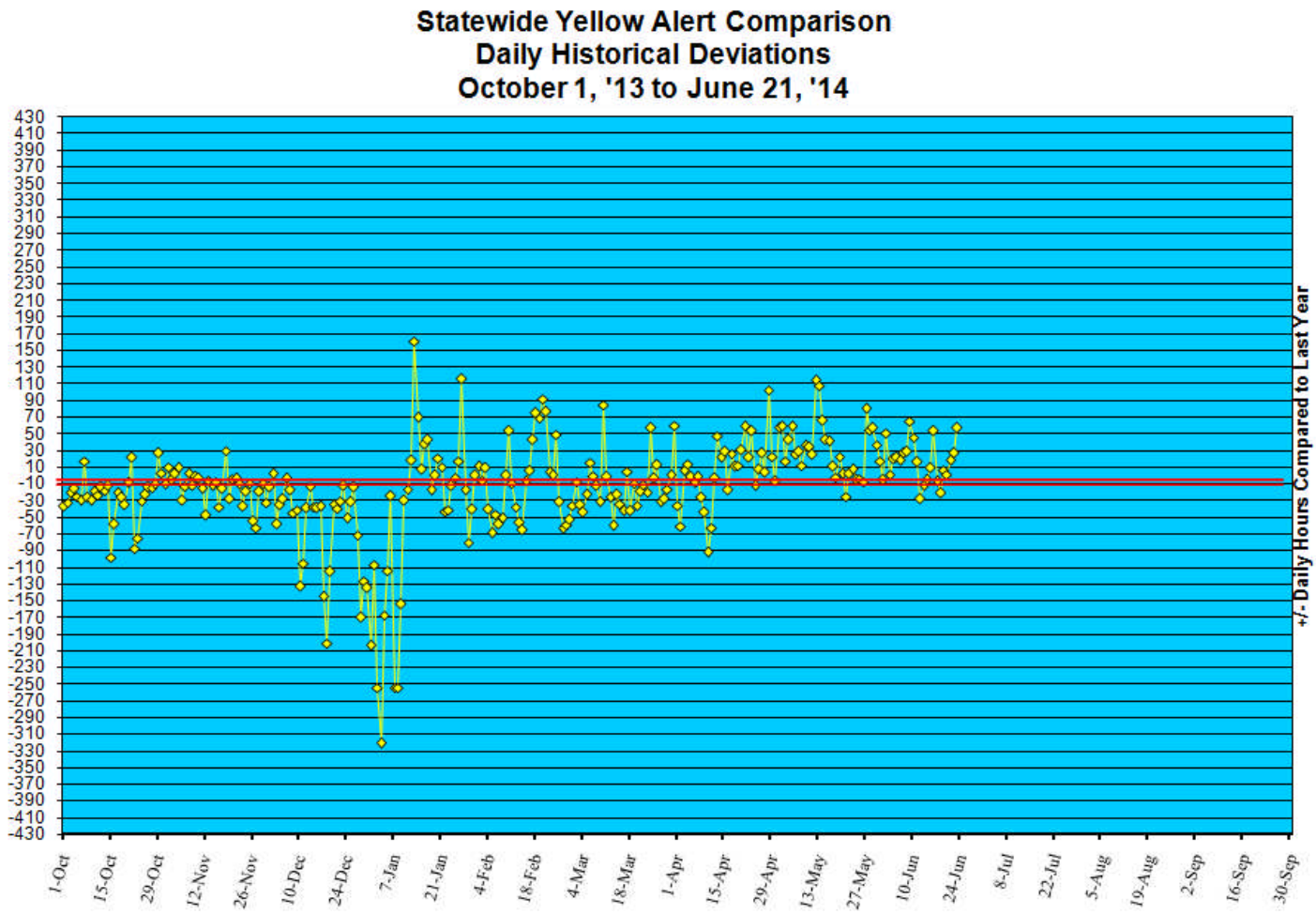
* Region 4 includes EDs in Cecil, Dorchester, Kent, Somerset, Talbot, Wicomico, and Worcester counties reporting to ESSENCE



* Region 5 includes EDs in Calvert, Charles, Montgomery, Prince George's, and St. Mary's counties reporting to ESSENCE

REVIEW OF EMERGENCY DEPARTMENT UTILIZATION

YELLOW ALERT TIMES (ED DIVERSION): The reporting period begins 10/01/13.



REVIEW OF MORTALITY REPORTS

Office of the Chief Medical Examiner: OCME reports no suspicious deaths related to an emerging public health threat for the week.

MARYLAND TOXIDROMIC SURVEILLANCE

Poison Control Surveillance Monthly Update: Investigations of the outliers and alerts observed by the Maryland Poison Center and National Capital Poison Center in May 2014 did not identify any cases of possible public health threats.

REVIEW OF MARYLAND DISEASE SURVEILLANCE FINDINGS

COMMUNICABLE DISEASE SURVEILLANCE CASE REPORTS (confirmed, probable and suspect):

Meningitis:	**Aseptic**	**Meningococcal**
New cases (June 15 - June 21, 2014):	8	0
Prior week (June 8 - June 14, 2014):	4	0
Week#25, 2013 (June 16 - June 22, 2013):	8	0

9 outbreaks were reported to DHMH during MMWR Week 25 (June 15 - June 21, 2014)

2 Foodborne Outbreaks
1 outbreak of GASTROENTERITIS/FOODBORNE associated with a Private Home
1 outbreak of GASTROENTERITIS/FOODBORNE associated with an Event Venue

2 Gastroenteritis Outbreaks
1 outbreak of GASTROENTERITIS associated with a Prison
1 outbreak of GASTROENTERITIS associated with a Detention Center

1 Respiratory Illness Outbreak
1 outbreak of PNEUMONIA in a Nursing Home

4 Rash Illness Outbreaks
1 outbreak of SCABIES in a Nursing Home
3 outbreaks of HAND, FOOT, AND MOUTH DISEASE associated with Daycare Centers

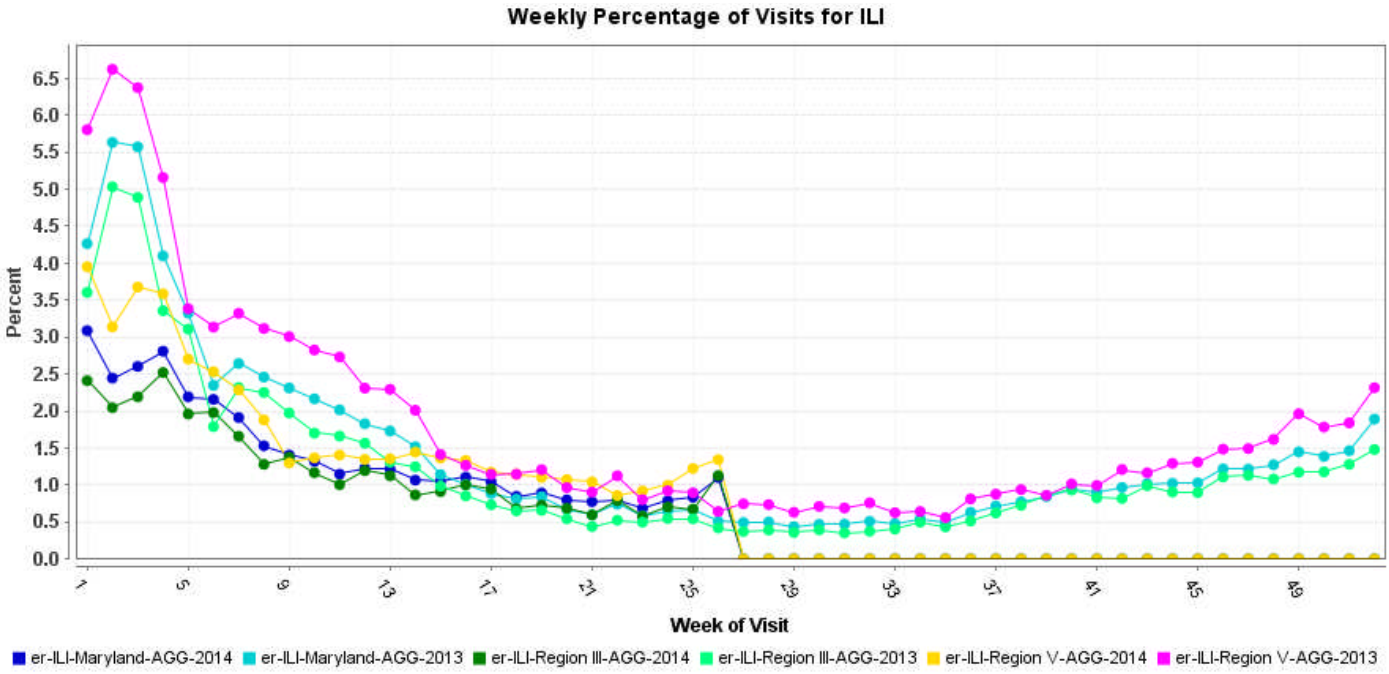
MARYLAND SEASONAL FLU STATUS

Seasonal Influenza reporting generally occurs October through May. The final reporting period for 2014 was MMWR Week 20.

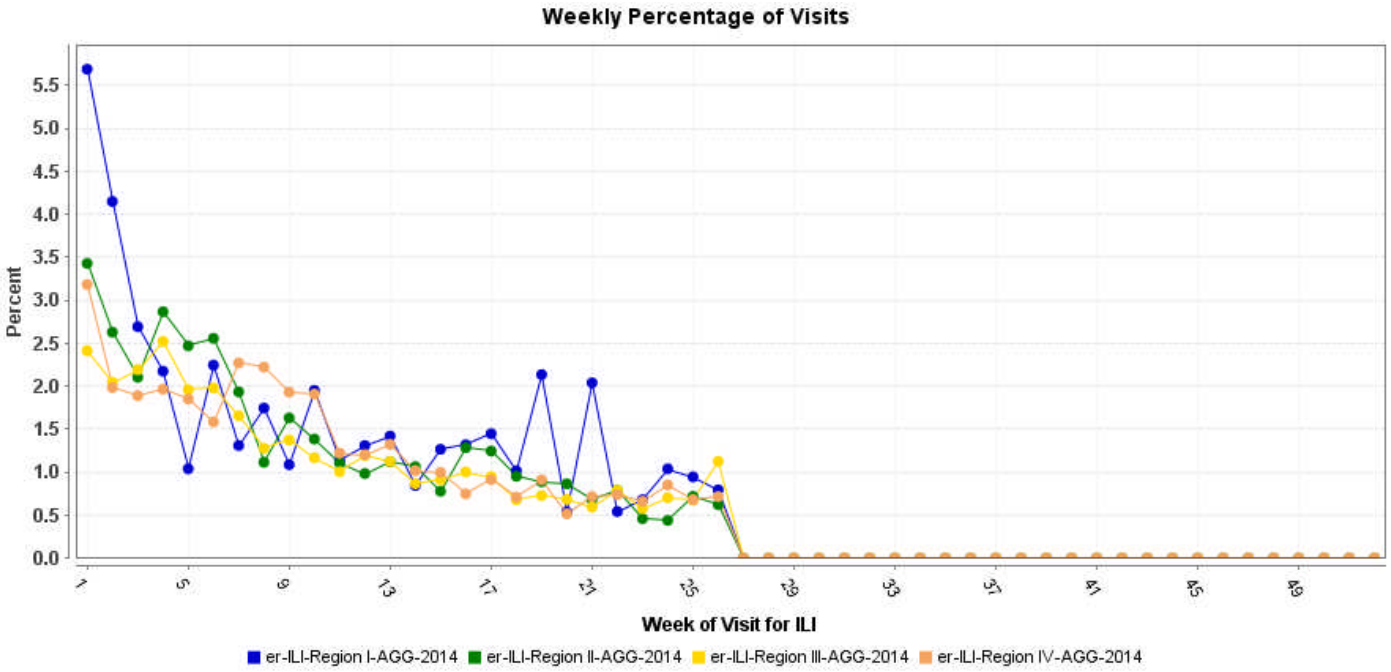
SYNDROMIC SURVEILLANCE FOR INFLUENZA-LIKE ILLNESS

Graphs show the percentage of total weekly Emergency Department patient chief complaints that have one or more ICD9 codes representing provider diagnoses of influenza-like illness. These graphs do not represent confirmed influenza.

Graphs show proportion of total weekly cases seen in a particular syndrome/subsyndrome over the total number of cases seen. Weeks run Sunday through Saturday and the last week shown may be artificially high or low depending on how much data is available for the week.



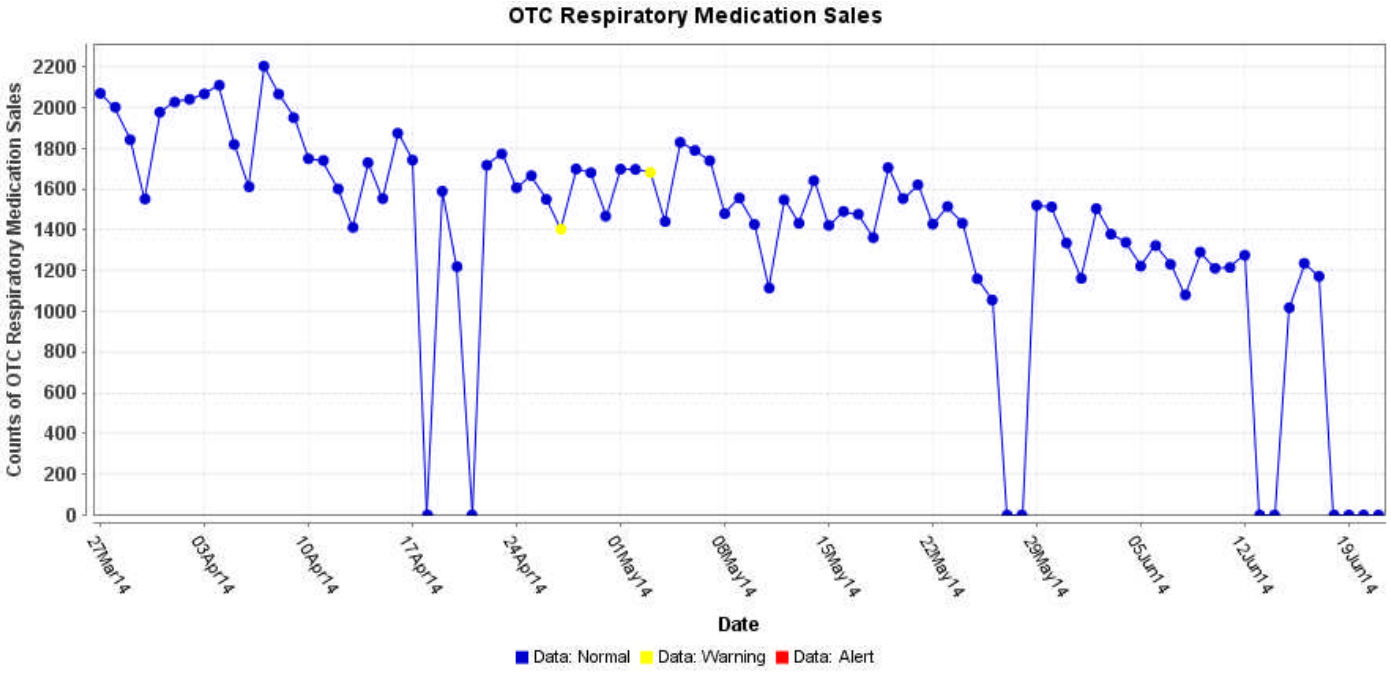
* Includes 2013 and 2014 Maryland ED visits for ILI in Metro Baltimore (Region 3), Maryland NCR (Region 5), and Maryland Total



*Includes 2014 Maryland ED visits for ILI in Region 1, 2, 3, 4, and 5

OVER-THE-COUNTER (OTC) SALES FOR RESPIRATORY MEDICATIONS:

Graph shows the daily number of over-the-counter respiratory medication sales in Maryland at a large pharmacy chain.



PANDEMIC INFLUENZA UPDATE / AVIAN INFLUENZA-RELATED REPORTS

WHO update: The current WHO phase of pandemic alert for avian influenza is ALERT. Currently, the avian influenza H5N1 virus continues to circulate in poultry in some countries, especially in Asia and northeast Africa. This virus continues to cause sporadic human infections with some instances of limited human-to-human transmission among very close contacts. There has been no sustained human-to-human or community-level transmission identified thus far.

Influenza A (H7N9) is one of a subgroup of influenza viruses that normally circulate among birds. Until recently, this virus had not been seen in people. However, human infections have now been detected. As yet, there is limited information about the scope of the disease the virus causes and about the source of exposure. The disease is of concern because most patients have been severely ill. There is no indication thus far that it can be transmitted between people, but both animal-to-human and human-to-human routes of transmission are being actively investigated.

Alert phase: This is the phase when influenza caused by a new subtype has been identified in humans. Increased vigilance and careful risk assessment, at local, national and global levels, are characteristic of this phase. If the risk assessments indicate that the new virus is not developing into a pandemic strain, a de-escalation of activities towards those in the interpandemic phase may occur. As of January 24, 2014, the WHO-confirmed global total of human cases of H5N1 avian influenza virus infection stands at 650, of which 386 have been fatal. Thus, the case fatality rate for human H5N1 is approximately 59%.

NATIONAL DISEASE REPORTS*

BOTULISM (CALIFORNIA): 15 June 2014, The Healdsburg Pickling Company is voluntarily recalling 3 of its pickled food products after the California Department of Public Health warned consumers that they may have been improperly produced. The products affected by the recall are green beans, carrots and pickles, which are packaged in quart and pint jars with screw-on metal lids. They have the label "Healdsburg Pickling Company" but do not have any coding or "use by" dates on the labels, officials said. The products were sold at The Cheese Shop in Healdsburg and Perry's Deli in Inverness. While no illnesses have been linked to any of the products, state health officials are asking consumers who have purchased the products to discard them. Possible improper packaging could make the products susceptible to contamination, causing botulism, a rare but sometimes fatal illness. (Botulism is Listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

HANTAVIRUS (NEW MEXICO): 17 June 2014, The New Mexico Department of Health announced today [17 Jun 2014] that a 67-year-old woman from San Juan County has died of hantavirus pulmonary syndrome (HPS). This is the 1st case of HPS in New Mexico this year [2014]. An environmental investigation will be conducted at the home of the patient to help reduce the risk to others. "We extend our sympathy to this woman's family and friends," said Department of Health Cabinet Secretary Retta Ward, MPH. "I want all New Mexicans to make sure they follow our prevention guidelines to keep themselves and their families safe from hantavirus pulmonary syndrome." Hantavirus [causes] a deadly disease transmitted by infected rodents through urine, droppings or saliva. People can contract the disease when they breathe in aerosolized virus. The deer mouse is the main reservoir for Sin Nombre virus, the hantavirus strain found in New Mexico. "People need to be very careful when they are cleaning out sheds, cabins, and other buildings that have been closed up for the winter, as mice and other rodents may have moved in," said Dr. Paul Ettestad, the department's public health veterinarian. "Disturbing areas of rodent infestation, including nests and droppings, can cause the virus to be stirred up into the air where the particles can be breathed in. It's best to air out cabins and sheds before entering them and wet down droppings with a disinfectant." The Department of Health urges health-care workers and the general public to familiarize themselves with the symptoms of hantavirus [infection]. Early symptoms of hantavirus infection include fever and muscle aches, possibly with chills, headache, nausea, vomiting, diarrhea, abdominal pain and cough which progresses to respiratory distress. These symptoms develop within 1 to 6 weeks after rodent exposure. Although there is no specific treatment for HPS, chances for recovery are better if medical attention is sought early.

Important steps to follow to prevent contracting hantavirus include:
- Trap mice until they are all gone.
- Clean up nests and droppings using a disinfectant.
- Don't sweep up rodent droppings into the air where they can be inhaled.
- Put hay, wood, and compost piles as far as possible from your home.
- Get rid of trash and junk piles.
- Don't leave your pet's food and water where mice can get to it.

In 2013, New Mexico identified 3 HPS cases, including a 12-year-old boy from McKinley County who died in December, a 45-year-old woman from McKinley County who survived, and a 73-year-old woman from Santa Fe County who died in October. In 2012, New Mexico reported one case of HPS, which resulted in the death of a 20-year-old woman from Rio Arriba County. In 2011, New Mexico identified 5 cases of HPS. Of the cases, 3 of the 5 were fatal, including a 51-year-old woman from McKinley County, a 35-year-old man from Torrance County, and a 23-year-old man from McKinley County. Since [HPS] was 1st discovered in 1993, New Mexico has reported a total of 95 lab-confirmed HPS cases with 40 deaths, the highest number of cases for any state in the nation. Nationally, since 1993, the Centers for Disease Control and Prevention (CDC) has reported a total of 639 cases with a fatality rate of 36 percent. (Hantavirus is Listed in Category C on the CDC List of Critical Biological Agents) *Non-suspect case

ANTHRAX (USA, CDC): 19 June 2014, As many as 75 scientists from the Centers for Disease Control and Prevention [CDC] may have been exposed to live anthrax bacteria after potentially infectious samples were sent to laboratories unequipped to handle dangerous pathogens, a spokesman for the federal health agency said Thursday [19 Jun 2014]. The agency was testing a new way to kill anthrax, which it discovered did not work as well as expected. None of the potentially infected scientists have any symptoms, but a number of them are being treated with antibiotics "out of an abundance of caution," the spokesman, Thomas Skinner, said. The lapse occurred sometime between 6 and 13 Jun 2014. Workers in 3 labs who were not wearing protective gear moved and experimented with samples of the highly infectious bacteria that were supposed to have been deactivated, the agency said. It added in a statement that procedures used in 2 of those laboratories in Atlanta, where the CDC is based, may have "aerosolized the spores," essentially blowing the bacteria into the air. The exposure was discovered [13 Jun 2014], when the bacterial plates were collected for disposal and live *Bacillus anthracis* colonies, or anthrax bacteria, were found. "The likelihood that anyone was actually exposed is very small," Mr Skinner said. Anthrax infects humans by touch, by inhalation or by consuming it. The inhaled form is the most dangerous, and among the 18 such cases identified in the United States

during the 20th century, the fatality rate was around 75 percent, according to the CDC's website. After the terrorist attack in fall 2001 in which *B. anthracis* spores were released through the mail, 5 of the 11 people who were ill died. The incubation period for anthrax is usually more than 2 weeks, so it is possible the scientists could still come down with symptoms. The incubation period can sometimes take months, according to the agency's website. Lab and hallway areas were being decontaminated after environmental sampling was conducted, the agency said. It added that the areas would be reopened when agency officials considered it safe to operate. The agency said that it "believes that other CDC staff, family members, and the general public are not at risk of exposure and do not need to take any protective action." The error arose, according to Paul J Meechan, the agency's director of health and safety, as scientists were testing a new way to kill anthrax bacteria with chemicals instead of radiation. CDC scientists were developing a way for state and local laboratories to rapidly test mysterious powders or liquids that might or might not contain anthrax. For safety, especially in state labs that do not have containment apparatus, the samples must be sterilized before they are tested. Radiation is the most foolproof way to do that, but many state labs also do not have expensive irradiation machines, so the intention was to kill with chemicals. After the bacteria were chemically treated, samples were put on agar plates and incubated 24 hours. When no anthrax colonies grew on them, the scientists assumed the bacteria were dead. "It didn't work as well as they thought," Dr Meechan said. The supposedly dead bacteria were sent to CDC laboratories that usually work with low-risk organisms, where workers are not normally vaccinated against anthrax and not expected to use advanced protective gear. 6 days later, when scientists started to dispose of the agar plates, they saw anthrax colonies growing on them, proving that some of the bacteria had survived. The bacteria were from the lethal Ames strain. Research is often conducted with the much safer Sterne strain, which is used in animal vaccines. It can infect, but it cannot keep reproducing, because it does not have the outer coating that protects it from the animal's immune system. The dangerous Ames strain was used, Dr Meechan said, because the test being developed was to detect dangerous ones. Asked what lesson the agency would take from the accident, Dr Meechan said: "It's too early to say what exactly went wrong, but we will find what did and we will fix it. Our people are too important to us for this to happen." (Anthrax is Listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

INTERNATIONAL DISEASE REPORTS*

EBOLA VIRUS DISEASE (LIBERIA): 18 June 2014, Since the last SitRep [No. 24, 17 Jun 2014], 4 new suspected cases were reported in Foya, Lofa County [Liberia]. Samples were taken from all 4 patients and were sent to the lab in Gueckedou, Guinea, for testing.

The total number of suspected, probable and confirmed EVD cases reported during the 2nd outbreak now stands at 26, including 18 cases in Lofa County and 8 cases in Montserrado County. The exact breakdown of cases is as follows:
- 8 suspected cases, all from Lofa County;
- 6 probable cases, including 2 from Lofa County and 4 from Montserrado County;
- 12 confirmed cases, including 8 from Lofa County and 4 from Montserrado County.

The total number of Ebola-related deaths still stands at 16, including 8 of the 18 patients in Lofa County and all 8 patients in Montserrado County. The latter includes the 1st child fatality connected to Ebola in Liberia. The case fatality rate for this outbreak is over 60 per cent (16/26 cases). This includes deaths in 8/12 confirmed cases and all 6 probable cases. The cumulative number of Ebola cases from both the 1st and 2nd outbreaks is being reviewed, as some cases from the 1st outbreak appear to have been discarded out upon deeper analysis. Foya, Lofa County, and New Kru Town, Montserrado County, remain the epicentres of this EVD outbreak.

*The index patient for Outbreak No. 2 was admitted into Foya Borma Hospital in Lofa County on 23 May [2014], but her case was not officially reported by the MoHSW [Ministry of Health and Social Welfare] until 29 May [2014]. The Ministry is therefore considering 29 May [2014] its starting point for tracking the 2nd outbreak. Similarly, the 1st confirmed case of Ebola in Montserrado County was reported in New Kru Town on 12 Jun [2014], although the onset of symptoms in the patient likely predated this. Unless otherwise stated, all figures reflect totals for the 2nd outbreak of Ebola, which began on 29 May [2014]. (Viral Hemorrhagic Fevers are listed in Category A on the CDC List of Critical Biological Agents) *Non-suspect case

National and International Disease Reports are retrieved from http://www.promedmail.org/.

OTHER RESOURCES AND ARTICLES OF INTEREST

More information concerning Public Health and Emergency Preparedness can be found at the Office of Preparedness and Response website: http://preparedness.dhmh.maryland.gov/ or follow us on Facebook at www.facebook.com/MarylandOPR.

Maryland's Resident Influenza Tracking System: http://dhmh.maryland.gov/flusurvey

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NOTE: This weekly review is a compilation of data from various surveillance systems, interpreted with a focus on a potential BT event. It is not meant to be inclusive of all epidemiology data available, nor is it meant to imply that every activity reported is a definitive BT event. International reports of outbreaks due to organisms on the CDC Critical Biological Agent list will also be reported. While not "secure", please handle this information in a professional manner. Please feel free to distribute within your organization, as you feel appropriate, to other professional staff involved in emergency preparedness and infection control.

For questions about the content of this review or if you have received this and do not wish to receive these weekly notices, please e-mail us. If you have information that is pertinent to this notification process, please send it to us to be included in the routine report.

Zachary Faigen, MSPH, REHS
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202
Baltimore, MD 21201
Office: 410-767-6745
Fax: 410-333-5000
Email: Zachary.Faigen@maryland.gov

Anikah H. Salim, MPH, CPH
Biosurveillance Epidemiologist
Office of Preparedness and Response
Maryland Department of Health & Mental Hygiene
300 W. Preston Street, Suite 202

Baltimore, MD 21201
Office: 410-767-2074
Fax: 410-333-5000
Email: Anikah.Salim@maryland.gov

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents

Table: Text-based Syndrome Case Definitions and Associated Category A Conditions

Syndrome	Definition	Category A Condition
Botulism-like	ACUTE condition that may represent exposure to botulinum toxin ACUTE paralytic conditions consistent with botulism: cranial nerve VI (lateral rectus) palsy, ptosis, dilated pupils, decreased gag reflex, media rectus palsy. ACUTE descending motor paralysis (including muscles of respiration) ACUTE symptoms consistent with botulism: diplopia, dry mouth, dysphagia, difficulty focusing to a near point.	Botulism
Hemorrhagic Illness	SPECIFIC diagnosis of any virus that causes viral hemorrhagic fever (VHF): yellow fever, dengue, Rift Valley fever, Crimean-Congo HF, Kyasanur Forest disease, Omsk HF, Hantaan, Junin, Machupo, Lassa, Marburg, Ebola ACUTE condition with multiple organ involvement that may be consistent with exposure to any virus that causes VHF ACUTE blood abnormalities consistent with VHF: leukopenia, neutropenia, thrombocytopenia, decreased clotting factors, albuminuria	VHF
Lymphadenitis	ACUTE regional lymph node swelling and/ or infection (painful bubo- particularly in groin, axilla or neck)	Plague (Bubonic)
Localized Cutaneous Lesion	SPECIFIC diagnosis of localized cutaneous lesion/ ulcer consistent with cutaneous anthrax or tularemia ACUTE localized edema and/ or cutaneous lesion/ vesicle, ulcer, eschar that may be consistent with cutaneous anthrax or tularemia INCLUDES insect bites EXCLUDES any lesion disseminated over the body or generalized rash EXCLUDES diabetic ulcer and ulcer associated with peripheral vascular disease	Anthrax (cutaneous) Tularemia
Gastrointestinal	ACUTE infection of the upper and/ or lower gastrointestinal (GI) tract SPECIFIC diagnosis of acute GI distress such as Salmonella gastroenteritis ACUTE non-specific symptoms of GI distress such as nausea, vomiting, or diarrhea EXCLUDES any chronic conditions such as inflammatory bowel syndrome	Anthrax (gastrointestinal)

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents
(continued from previous page)

Syndrome	Definition	Category A Condition
Respiratory	ACUTE infection of the upper and/ or lower respiratory tract (from the oropharynx to the lungs, includes otitis media) SPECIFIC diagnosis of acute respiratory tract infection (RTI) such as pneumonia due to parainfluenza virus ACUTE non-specific diagnosis of RTI such as sinusitis, pharyngitis, laryngitis ACUTE non-specific symptoms of RTI such as cough, stridor, shortness of breath, throat pain EXCLUDES chronic conditions such as chronic bronchitis, asthma without acute exacerbation, chronic sinusitis, allergic conditions (Note: INCLUDE *acute exacerbation* of chronic illnesses.)	Anthrax (inhalational) Tularemia Plague (pneumonic)
Neurological	ACUTE neurological infection of the central nervous system (CNS) SPECIFIC diagnosis of acute CNS infection such as pneumococcal meningitis, viral encephalitis ACUTE non-specific diagnosis of CNS infection such as meningitis not otherwise specified (NOS), encephalitis NOS, encephalopathy NOS ACUTE non-specific symptoms of CNS infection such as meningismus, delerium EXCLUDES any chronic, hereditary or degenerative conditions of the CNS such as obstructive hydrocephalus, Parkinson's, Alzheimer's	Not applicable
Rash	ACUTE condition that may present as consistent with smallpox (macules, papules, vesicles predominantly of face/arms/legs) SPECIFIC diagnosis of acute rash such as chicken pox in person > XX years of age (base age cut-off on data interpretation) or smallpox ACUTE non-specific diagnosis of rash compatible with infectious disease, such as viral exanthem EXCLUDES allergic or inflammatory skin conditions such as contact or seborrheaic dermatitis, rosacea EXCLUDES rash NOS, rash due to poison ivy, sunburn, and eczema	Smallpox
Specific Infection	ACUTE infection of known cause not covered in other syndrome groups, usually has more generalized symptoms (i.e., not just respiratory or gastrointestinal) INCLUDES septicemia from known bacteria INCLUDES other febrile illnesses such as scarlet fever	Not applicable

Syndrome Definitions for Diseases Associated with Critical Bioterrorism-associated Agents (continued from previous page)

Syndrome	Definition	Category A Condition
Fever	ACUTE potentially febrile illness of origin not specified INCLUDES fever and septicemia not otherwise specified INCLUDES unspecified viral illness even though unknown if fever is present EXCLUDE entry in this syndrome category if more specific diagnostic code is present allowing same patient visit to be categorized as respiratory, neurological or gastrointestinal illness syndrome	Not applicable
Severe Illness or Death potentially due to infectious disease	ACUTE onset of shock or coma from potentially infectious causes EXCLUDES shock from trauma INCLUDES SUDDEN death, death in emergency room, intrauterine deaths, fetal death, spontaneous abortion, and still births EXCLUDES induced fetal abortions, deaths of unknown cause, and unattended deaths	Not applicable